

CLAIMS

1. A method of providing an arbitrary sound to replace a conventional tone in a communication network, comprising:

a first step, conducted by an HLR (Home Location Register),
5 of furnishing an exchanger, when a terminal is registered through the exchanger, with first information on whether an ordinary tone is to be replaced or not and second information informing a route to a sound providing means;

a second step, conducted by the exchanger, of requesting a
10 trunk connection to the sound providing means, if the terminal is called by a caller, based on the first and the second information while furnishing the sound providing means with third information on call state; and

a third step, conducted by the sound providing means, of
15 determining a tone-replacing sound based on the received third information for the terminal, and providing the determined tone-replacing sound as a ringback tone to the caller through the exchanger which the trunk connection is made to.

2. A method of providing an arbitrary sound to replace a
20 conventional tone in a communication network, comprising:

a first step, conducted by an HLR (Home Location Register),
of furnishing an exchanger, when a terminal is registered through the exchanger, with first information on whether an ordinary tone is to be replaced or not and second information informing a route
25 to a sound providing means;

a second step, conducted by the exchanger, of requesting a first trunk connection to the sound providing means, if the terminal is called by a latter caller under already-connected

condition to a former caller, based on the first and the second information while providing the sound providing means with third information on call state;

a third step, conducted by the sound providing means, of
5 determining a tone-replacing sound based on the received third information for the terminal, and providing the determined tone-replacing sound as a ringback tone to the latter caller through the exchanger;

a fourth step, conducted by the exchanger, of requesting
10 release of the first trunk connection to the sound providing means, if the terminal accepts the call from the latter caller, and requesting a second trunk connection to the sound providing means for the connected former caller while providing the sound providing means with fourth information on call-switched; and

15 a fifth step, conducted by the sound providing means, of determining a tone-replacing sound based on the received fourth information for the terminal, and providing the determined tone-replacing sound as a call-waiting tone to the former caller through the exchanger which the second trunk connection is made
20 to.

3. The method of claim 1 or 2, wherein the third information is to indicate that the terminal is busy.

4. The method of claim 2, wherein the fourth information is to indicate that either of the callers is suspended to wait for
25 call reconnection.

5. The method of claim 1 or 2, wherein the first information on whether an ordinary tone is to be replaced or not is set in the HLR based on specific key information received from the terminal.

30 6. The method of claim 1 or 2, wherein the first and the

second information are included in a response message to a location registration request message, the response message being sent from the HLR to the exchanger.

7. The method of claim 6, wherein the first information is
5 written in a reserve field allocated in value-added service parameters of subscriber's profile.

8. The method of claim 1 or 2, wherein the sound providing means determines the tone-replacing sound based on who the caller is, which group the caller belongs to among several groups
10 classified by the called, calling time, and/or call state.

9. The method of claim 1 or 2, wherein a message to request the trunk connection to the sound providing means includes called- and caller-identification.

10. The method of claim 1 or 2, wherein the sound providing
15 means changes a current tone-replacing sound specified for the called with another one through communication with a web server operating based on internet protocol.

11. The method of claim 10, wherein said another sound is one already stored in the sound providing means or received newly
20 via the web server.

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